

Chapter Eight

Basic Concepts of Chemical Bonding Key

1-e

10-b

2-a

11-d

3-c

12-d

4-c

13-d

5-a

14-a

6-a

15-b

7-e

16-b

8-c

17-a

9-b

18-c

Solution of the Practice Exercise

(a) F is expected to have the partial negative charge (electron affinity trend)

(b) $\mu = 0.88 \text{ D}$

$$= 0.88 \times 3.34 \times 10^{-30} \text{ C.m}$$

$$= 2.9 \times 10^{-30} \text{ C.m}$$

$$r = 1.63 \text{ \AA} = 1.63 \times 10^{-10} \text{ m}$$

$$e = 1.60 \times 10^{-19} \text{ C/e}$$

$$\mu = Qr$$

$$Q = \mu / r = 2.9 \times 10^{-30} \text{ C.m} / 1.63 \times 10^{-10} \text{ m}$$
$$= 1.8 \times 10^{-20} \text{ C}$$

$$Q / e = 1.8 \times 10^{-20} \text{ C} / 1.60 \text{ C/e}$$
$$= 0.11 \text{ e}$$